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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,418	09/30/2003	Chan-Tung Chen	3624-0130P	2698
2292	7590	04/15/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			HUNTER, ALVIN A	
			ART UNIT	PAPER NUMBER
			3711	
DATE MAILED: 04/15/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/673,418	<b>Applicant(s)</b> CHEN ET AL.	
	<b>Examiner</b> Alvin A. Hunter	<b>Art Unit</b> 3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2004.
- 2a) ☒ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 4 is objected to because of the following informalities: In line 2, "WFeNi" should read --WMoNi--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakai et al. (JP 07-216490 A).

Regarding claim 1, Nakai et al. discloses a tungsten alloy for a golf club having at least 40 to less than 100 wt% of tungsten, and one or two metals (nickel and molybdenum) of 60 or less wt% (See Abstract). Though Nakai et al. does not disclose the specific amounts of nickel and molybdenum separately, one having ordinary skill in the art would have found it obvious to have nickel and molybdenum in any amount to obtain the specific gravity desired by the designer. Nakai et al. discloses the process for making the alloy using powder metallurgy (See Means for Solving the Problem). "Made by precision casting", as claimed by the applicant, refers to a product by process; therefore, it is submitted that Nakai et al. meet the limitation of the claim so long as the final product has been achieved.

Regarding claim 4, Nakai et al. discloses the alloy having a specific gravity of 11.3 to 19.2 (See Paragraph 0019).

Regarding claim 6, Nakai et al. discloses having at least one component for improving a mechanical property of the alloy.

Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakai et al. (JP 07-216490) in view of Kapoor (USPN 5760317).

Regarding claim 5, Naaki et al. does not disclose having silicon. Kappor discloses a tungsten alloy having silicon in 0 to 2 weight % (See Background of the Invention and Summary of the Invention). One having ordinary skill in the art would have found it obvious to incorporate silicon, as taught by Kapoor, into Nakai et al. in order to improve the processability of the tungsten alloy.

Regarding claim 7, Nakai et al. discloses copper being added in less than 3 weight % but does not disclose having manganese, niobium, and vanadium. Kapoor discloses a tungsten allow having manganese, niobium, and vanadium in amounts of 1 to 10 weight % (Summary of the Invention). One having ordinary skill in the art would have found it obvious to incorporate manganese, niobium, and vanadium, as taught by Kapoor, into Nakai in order to improve the deformability of the tungsten alloy.

### ***Response to Arguments***

Applicant's arguments filed 12/07/2004 have been fully considered but they are not persuasive. Applicant argues that Nakai et al. does not provide the same results from that of precision casting. The examiner disagrees. The process in a product-by-process claim is only given weight if it can be shown that the process provides

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unexpected results. Applicant's disclosure in the background of the invention only discusses powder metallurgy in regards to a WFeNi alloy. Furthermore, applicant states in the summary of the invention that the alloy can be made by powder metallurgy or precision casting. This is admission that the process does not provide any unexpected result. If the process is unsuitable for precision casting, applicant should provide evidence showing such. In regards to the product being a weight member for a golf club, the product is technically a weight member for a golf club. Nakai et al. disclose the tungsten alloy being use to make a club head to give the club head the weight desired. Furthermore, applicant is only claiming a composition. The claims recite nothing to structurally distinguishing it from being only that. For these reasons, the above rejection has been furnished.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

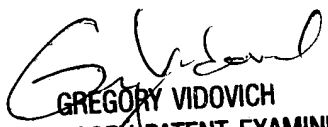
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is (571) 272-4411. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Vidovich, can be reached on 571-272-4415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AAH

Alvin A. Hunter, Jr.

  
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